

WHAT IS CLAIMED IS:

- 1 1. An isolated nucleic acid molecule comprising a
2 polynucleotide sequence having a subsequence which specifically hybridizes
3 under stringent conditions to a sequence selected from the group consisting of
4 SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ.
5 ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No.
6 10, SEQ. ID. No. 12, AND SEQ. ID. No. 13.
- 1 2. The isolated nucleic acid of claim 1, wherein the ~~SEQ. ID. No. 2~~
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 *A.*
- 1 3. The isolated nucleic acid of claim 2, wherein the ~~SEQ. ID. No. 2~~
2 subsequence is ~~SEQ. ID. No. 2~~
3 *A.*
- 1 4. The isolated nucleic acid of claim 1, wherein the ~~SEQ. ID. No. 3~~
2 subsequence specifically hybridizes to ~~SEQ. ID. No. 3~~
3 *A.*
- 1 5. The isolated nucleic acid of claim 4, wherein the ~~SEQ. ID. No. 3~~
2 polynucleotide is ~~SEQ. ID. No. 3~~
3 *A.*
- 1 6. The isolated nucleic acid of claim 1, wherein the ~~SEQ. ID. No. 4~~
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 *A.*
- 1 7. The isolated nucleic acid of claim 6, wherein the ~~SEQ. ID. No. 4~~
2 subsequence is ~~SEQ. ID. No. 4~~
3 *A.*
- 1 8. The isolated nucleic acid of claim 1, wherein the ~~SEQ. ID. No. 5~~
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 *A.*

1 9. The isolated nucleic acid of claim 8, wherein the
2 subsequence is SEQ. ID. No. 5.

1 10. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ ^{SEQ ID NO: 6}
3 .

1 11. The isolated nucleic acid of claim 10, wherein the
2 subsequence is ~~SEQ. ID. No. 6~~
1

1 12. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID NO.~~ ^{SEQ ID NO.7} No.
3 1.

1 14. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ ^{SEQ. ID. NO. 8}
3 8.

1 *Sub a y* 15. The isolated nucleic acid of claim 14, 16, 18, 20, wherein
2 the subsequence is SEQ. ID. No. 8.

1 16. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ ^{SEQ ID NO: 9}
3 9.

1 17. The isolated nucleic acid of claim 16, wherein the
2 subsequence is SEQ. ID. No. 9.

1 18. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 10.

1 19. The isolated nucleic acid of claim 18, wherein the
2 subsequence is ~~SEQ. ID. No. 10.~~
3 10.

1 20. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 12.

1 21. The isolated nucleic acid of claim 20, wherein the
2 subsequence is ~~SEQ. ID. No. 12.~~
3 12.

1 22. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 13.

1 23. The isolated nucleic acid of claim 22, wherein the
2 subsequence is ~~SEQ. ID. No. 12.~~
3 13.

1 24. The isolated nucleic acid of claim 1, further comprising a
2 promoter sequence operably linked to the polynucleotide sequence.

1 25. The isolated nucleic acid of claim 1, which nucleic acid is
2 a cDNA molecule.

Sub
D/
1 26. A method of screening for neoplastic cells in a sample, the
2 method comprising:

3 contacting a nucleic acid sample from a human patient with a
4 probe which hybridizes selectively to a target polynucleotide sequence
5 comprising a sequence selected from the group consisting of SEQ. ID. No. 1,
6 ~~95~~
7 ~~SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ.~~
8 ~~SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No.~~
9 ~~10, SEQ. ID. No. 11, SEQ. ID. No. 12, and, SEQ. ID. No. 13~~ wherein the
10 probe is contacted with the sample under conditions in which the probe
11 hybridizes selectively with the target polynucleotide sequence to form a stable
12 hybridization complex; and
detecting the formation of a hybridization complex.

1 27. The method of claim 26, wherein the nucleic acid sample
2 is from a patient with breast cancer.

1 28. The method of claim 26, wherein the nucleic acid sample
2 is a metaphase spread or a interphase nucleus.

1 29. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO. 1*

1 30. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO. 2*

1 31. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO. 3*

1 32. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO. 4*

1 33. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO. 5*

1 34. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 6.

1 35. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 7.

1 36. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 8.

1 37. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 9.

1 38. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 10.

1 39. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 12.

1 40. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 13.

1 41. The method of claim 26, wherein the probe is used to
2 identify the presence of a mutation in the target polynucleotide sequence.

1 42. A method for detecting a neoplastic cell in a biological
2 sample, the method comprising:

3 contacting the sample with an antibody that specifically binds a
4 polypeptide antigen encoded by a polynucleotide sequence comprising a
5 sequence selected from the group consisting of ~~SEQ. ID. No. 1, SEQ. ID. No.~~
6 ~~2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ.~~
7 ~~7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No.~~
8 ~~12, and SEQ. ID. No. 13~~; and

9 detecting the formation of an antigen-antibody complex.

1 43. The method of claim 42, wherein the sample is from
2 breast tissue.

1 44. A method of inhibiting the pathological proliferation of
2 cancer cells, the method comprising inhibiting the activity of a gene product of
3 an endogenous gene having a subsequence which hybridizes under stringent
4 conditions to a sequence selected from the group consisting of ~~SEQ. ID. 1,~~
5 ~~SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID.~~
6 ~~6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. NO. 9, SEQ. ID. NO. 10,~~
7 ~~SEQ. ID. No. 12, and SEQ. ID. No. 13~~.

1 45. A method of detecting a cancer, said method comprising
2 detecting the overexpression of a protein encoded in a 20q13 amplicon.

1 46. The method of claim 41, wherein said protein encoded in
2 a 20q13 amplicon is ZABC1.

1 47. The method of claim 41, wherein said protein encoded in
2 a 20q13 amplicon is 1b1.

(MAB2)